

July 2015

Harvey County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 21 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Harvey County economy.¹ These 21 sectors have a total direct output of approximately \$1489 million and support 3,012.4 jobs in Harvey County. Running the model for all 21 sectors simultaneously produces the following results:

Agriculture Contribution in Harvey County

Impact Type ²	Employment	% of Total Employment	Total Value Added ³	% of Gross Regional Product ⁴	Output ⁵	% of Gross Regional Product
Direct Effect	3,012.4	12%	\$328,797,166	19%	\$1,488,941,939	88%
Indirect Effect	1,261.9	5%	\$92,269,515	5%	\$170,719,804	10%
Induced Effect	928.8	4%	\$60,133,354	4%	\$104,206,940	6%
Total Effect	5,203.1	21%	\$481,200,036	29%	\$1,763,868,682	105%

As shown in the above table, agriculture, food, and food processing supports 5,203.1 jobs, or 21% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$1764 million, roughly 105% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 21 agriculture, food, and food processing sectors is approximately \$481 million, or 29% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 29% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:
https://implan.com/index.php?option=com_content&view=category&id=19

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

⁴ GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

⁵ Output = Intermediate Inputs + Value Added

In the top ten by employment, Farm machinery and equipment manufacturing is the top employer in the agriculture industry with 1,804.3 employees. This table also shows the amount of jobs that are created by the agriculture industry in Harvey County.

Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Farm machinery and equipment manufacturing.....	1,804.3	\$1,137,281,407
Grain farming	322.5	\$81,742,455
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	231.4	\$43,420,364
Real estate.....	181.1	\$27,435,107
Wholesale trade.....	161.6	\$33,986,245
Securities and commodity contracts intermediation and brokerage	143.6	\$6,091,704
Veterinary services	124.3	\$7,027,440
All other crop farming.....	89.7	\$8,241,010
Full-service restaurants.....	88.7	\$3,843,033
Retail - Motor vehicle and parts dealers	87.9	\$10,912,295

The Farm machinery and equipment manufacturing industry directly contributes approximately \$1137 million to Harvey County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Farm machinery and equipment manufacturing.....	1,804.3	\$1,137,281,407
Flour milling.....	60.3	\$91,610,504
Grain farming	322.5	\$81,742,455
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	231.4	\$43,420,364
Oilseed farming.....	23.3	\$36,577,087
Wholesale trade.....	161.6	\$33,986,245
Animal, except poultry, slaughtering.....	53.5	\$32,147,765
Real estate.....	181.1	\$27,435,107
Fertilizer mixing.....	40.1	\$26,686,364
Owner-occupied dwellings	0.0	\$18,824,862

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Harvey County's economy.

[illegible]

All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.